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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/872,931	06/01/2001	Christian Hentschel	PHNL 010327	3260

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
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EXAMINER

LEE, Y YOUNG

ART UNIT PAPER NUMBER

2621

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/872,931

Applicant(s)

HENTSCHEL ET AL.

Examiner

Y. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20-24 and 27-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 20-24 and 27-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/27/05 has been entered.

### ***Drawings***

2. The drawings were received on 4/14/05. These drawings are accepted.

3. Figures 1-3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

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As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

### ***Claim Objections***

- 4. Claim 32 is objected to because of the following informalities:
  - a. line 10, after "(312')", --,-- should be inserted; and
  - b. line 12, after "(310')", --,-- should be inserted.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 21 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 21 recites the limitation "said available amount of resources" in line 5.

There is insufficient antecedent basis for this limitation in the claim.

8. Claim 24 recites the limitation "said complexity-distortion characteristic" in line 2.

There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 20-24 and 27-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan (US 5,596,369) in view of Panusopone et al. (US 6,647,061) in further view of Piccinelli et al. (6556718), (hereinafter referred to as "Piccinelli").

As for Claim's 20 and 32, Chan teaches at least one variable length decoder (Chan: Reference Number 32 in Figure 5), at least one compensator coupled to the variable length decoder (Chan: Reference Number 40 in Figure 5), a summing junction coupled to the inverse discrete cosine transform and motion compensator (Chan: Reference Number 44 in Figure 5) and a controller (Chan: Reference Number 36 in Figure 5). Chan also teaches where at least one of the variable length decoder, inverse quantizer, inverse discrete cosine transform and motion compensator is coupled to the controller (Chan: Figure 5) and responsive to operate based upon a given complexity characteristic (Column 5, line 64 to Column 6, line 6). Although Chan fails to teach at least one inverse quantizer coupled to the variable length decoder, at least one inverse discrete cosine transform couple to the inverse quantizer and coupling the variable length decoder and inverse quantizer to the controller, Panusopone et al. does (Panusopone: Figure 4). Chan further fails to teach at least one of the various components operates in a plurality of modes. Piccinelli teaches that it is well known that a motion compensator operates in a plurality of modes based on a complexity characteristic (Piccinelli: column 5, lines 23-37, wherein the complexity characteristic is based on the error, the plurality of modes are MC/no-MC). Therefore it would have

been obvious to one of ordinary skill to incorporate the plurality of modes and connect the Inverse Quantizer and VLD to the controller as well as the Motion Compensator and the IDCT to have more control and allow for more and efficient compression and better image quality.

As for Claim's 21 and 33, Chan teaches where the controller selects one of the modes further based upon an available amount of computing resources for operating at least one of the variable length decoder, inverse quantizer, inverse discrete cosine transform and motion compensator and one of the modes is substantially equal to the available amount of resources (Chan: Column 8, line 49 to Column 9, line 55). This shows that inputs and outputs are calculated and then the motion compensator is calculated to use the exact amount of resources needed instead of wasting memory by using the worst-case scenario.

As for Claim's 22-24 and 34-36, many of the limitations have been addressed in the above rejections. Chan teaches where at least one IDCT is selectively operable in response to the controller (Chan: Column 5, line 64 to Column 6, line 6), where the selectively operated IDCT implements the selected one of the modes and where the complexity-distortion characteristic of the selected one of the modes is more efficient than those of the others of the plurality of modes (Chan: Column 6, lines 8-18). This shows that the less time used to process the information results in a more efficient mode. Although Chan fails to specifically teach a plurality of IDCTs for operating the different modes, Panusopone does show operating in the Intra and Inter modes with the use of one IDCT (Panusopone: Figures 4A and 4B). Since Panusopone shows the

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operation of the Intra and Inter modes with a single IDCT it would have been obvious to one of ordinary skill to use multiple IDCTs in order to operate in the I, P and B modes respectfully with their own individual IDCT. (Official Notice)

As for Claim's 27-29 and 37-39, many of the limitations have been addressed in the above rejections. Chan teaches further comprising at least one scaleable application that is responsive to the controller, where the scaleable application is operable in a plurality of modes, each of the modes having a different complexity characteristic and where the controller determines if available resources are not suitable for operation of the scaleable application and selects another of the modes for the scaleable application (Chan: Column 7, lines 11-31, Column 8, lines 25-30, wherein the I values have priority, or a weight/scale, over the M values). This shows that the M and I values are calculated for different input modes.

As for Claim's 30, 31 and 40, Chan teaches comprising a memory accessible to the controller that includes data indicative of complexity-distortion characteristics of each of the modes for a plurality of amount of available system resources (Chan: Column 5, lines 15-19; See also Figure 5).

### ***Response to Arguments***

12. Applicant's arguments with respect to claims 20-24 and 27-40 have been considered but are moot in view of the new ground(s) of rejection.




***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y. Lee whose telephone number is (571) 272-7334. The examiner can normally be reached on (571) 272-7334.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Groody can be reached on (571) 272-7950. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Y. Lee  
Primary Examiner  
Art Unit 2621

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